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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/416,308	10/12/1999	PRADEEP K. KATHAIL	CISCO-1321	5986

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EXAMINER
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PHAM, HUNG Q

ART UNIT	PAPER NUMBER
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2172

DATE MAILED: 05/21/2004

27

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/416,308

**Applicant(s)**

KATHAIL ET AL.

**Examiner**

HUNG Q PHAM

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 19-34 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 19-34 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments with respect to claims 19-34 have been considered but are moot in view of the new ground(s) of rejection.

***Drawings***

2. In order to avoid abandonment, the drawing informalities noted in Paper No. 5, mailed on 12/19/2001, must now be corrected. Correction can only be effected in the manner set forth in the above noted paper.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**4. Claims 19-22, 25, 27-30 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al. [USP 6,061,692].**

Regarding to claims 19 and 27, Thomas teaches a method and a product for constructing an information server incorporated a database of configuration information including configuration metadata, metadata content (Col. 5, Lines 25-39) referred to as Metabase (Col. 11, Lines 47-52). As shown in FIG. 3, entity 114 is a software component, which has the appropriate permissions and a need to store information in or retrieve information from metabase 106, for example, a content index server which accesses information on local storage 104 and indexes the content of the information (Col. 13, Lines 47-60). As seen, the entity 114 as disclosed by Thomas is a software component of the information server, or in different words, *instruction for directing a processing unit* in information server *to maintain* Metabase or *configuration database*. Returning to FIG. 3, FTP service 124, web service 126, MIME map 128, and logging 130 are also software components to retrieve information, access and return information objects in response to a request (Col. 11, Lines 53-59). In order to discover changes that are made to the database, a notification mechanism is implemented. Software components or clients may register to be notified when certain events occur. For example, a component may register to be notified when a change is made to properties

in the database (Col. 6, Lines 57-62). A registration request may contain a handle or pointer to an entry point of metabase (Col. 26, Lines 60-63). As shown in FIG. 11, the metabase system 316 receives a registration request from a client for notifying of changes (Col. 25, Lines 62-64), wherein a client including both entities making requests of the information server and entities accessing the metabase (Col. 4, Lines 5-9). As seen, a registration request or *notification request* from a client as disclosed by Thomas *is a request to receive notification of changes to configuration data of an object in network*, and via the metabase system as *instruction for directing a processing unit in information server to receive a notification request* that is *sent from one* of software components, such as FTP service 124, web service 126, MIME map 128, and logging 130, as *subsystems*, which *is instruction executed by processing unit to provide an application of an internetwork operating system*. Thomas further discloses the technique of *storing an identification of one of* plurality software components, such as FTP service 124, web service 126, MIME map 128, and logging 130, as *subsystems that transmitted said notification request in a record in* metabase as *database that stores said configuration data for object identified in said notification request* as in FIG. 4 and 5. As shown in FIG. 12B, when the events occur, the registered clients are identified at step 334, and notification is sent to the identified recipients at step 336 (Col. 27, Lines 6-17) as the step of *identifying one of* software components, such as FTP service 124, web service 126, MIME map 128, and logging 130, as *subsystem to notify in response to a change in said configuration data for object in record*, and obviously, the component is identified by its ID as disclosed in FIG. 5. As shown in FIG. 1 is a *media readable by said processing unit that stored the software*

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components as *instructions* (Col. 8, Lines 27-29). The difference between the claimed invention and Thomas technique is *a router device* instead of information sever.

However, as suggested by Thomas, the disclosed technique may be practiced with other computer system configurations, or network PCs (Col. 8, Lines 54-59). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Thomas method and product by implementing the technique in a router device in order to discover changes that are made to configuration data.

Regarding to claims 20 and 28, Thomas teaches all the claimed subject matters as discussed in claims 19 and 27, Thomas further discloses the step of *receiving a change in said configuration data of said object; reading said identification of said one of said plurality of subsystems from said record of said object receiving to receiving said change of said configuration data, and transmitting a notification of said change of configuration data of said object to said one of said plurality of subsystems responsive to said reading of said identification* (Col. 26, Line 60-Col. 27, Line 17).

Regarding to claims 21 and 29, Thomas teaches all the claimed subject matters as discussed in claims 19 and 27, Thomas further discloses the step of *retrieving a record storing said configuration data for said object responsive to receiving said notification request, setting a notification flag in said record* (Col. 38, Line 60-Col. 39, Line 20, Col. 40, Lines 45-55).

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Regarding to claims 22 and 30, Thomas teaches all the claimed subject matters as discussed in claims 21 and 29, Thomas further discloses the step of *receiving a change to said configuration data of said object retrieving said record of said object, reading said notification flag* (Col. 27, Lines 6-9, and Col. 39, Lines 15-20).

Regarding to claims 25 and 33, Thomas teaches all the claimed subject matters as discussed in claims 19 and 27, Thomas further discloses the step of *receiving a remove notification request from said one of said plurality of subsystems, wherein said remove notification request is a request to remove said one of said plurality of subsystems from said plurality of subsystems to be notified in response to a change in said configuration data, and removing said identification of said one of said plurality of subsystems from said record of said configuration data storing subsystems to be notified of a change in said configuration data* (Col. 34, Lines 50-67).

**5. Claims 23-34, 26, 31-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al. [USP 6,061,692] in view of Tabuchi [USP 6,446,093].**

Regarding to claims 23 and 31, Thomas teaches all the claimed subject matters as discussed in claims 21 and 29, Thomas further discloses the step of *determining said notification request is configuration data of a name space, retrieving each child record of said record* (Thomas, Col. 25, Lines 20-48), but fails to teach the step of *setting a notification flag in each said child record*. Tabuchi teaches a distributed system comprising a document server and a plurality of clients, which are connected to the document server via a network and a method of managing a document shared in the distributed system (Tabuchi, Col. 1, lines 5-10). Tabuchi further discloses the step of setting a notification flag in a record (Tabuchi, Col. 6, lines 15-54). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Thomas product and method by including the technique of setting a notification flag in a child record as taught by Tabuchi, and by doing this, a child record could be controlled and managed via access right.

Regarding to claims 24 and 32, Thomas and Tabuchi teaches all the claimed subject matters as discussed in claims 23 and 31, Thomas further discloses the step of *receiving a change to configuration in a child record, retrieving said child record responsive to receiving said change, and transmitting notification of said change of said change to said*



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*one of said plurality of subsystems identified in said parent record* (Thomas, Col. 25, Lines 20-48), but fails to teach the step of *reading said notification flag in said child record responsive to retrieving said record, reading a parent record of said child responsive to reading said notification flag*. Tabuchi teaches a distributed system comprising a document server and a plurality of clients, which are connected to the document server via a network and a method of managing a document shared in the distributed system (Tabuchi, Col. 1, lines 5-10). Tabuchi further discloses the step of reading notification flag (Tabuchi, Col. 26, lines 27-28). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Thomas product by including the step of reading notification flag in child also parent record, and by including the step of reading, a record could be controlled and managed for modifying via access right.

Regarding to claims 26 and 34, Thomas teaches all the claimed subject matters as discussed in claims 25 and 33, Thomas fails to disclose the step of *determining whether said configuration data for which said remove notification request is for a name space, retrieving each child record of said record of said configuration data responsive to a determination said configuration data is a name space, and removing a notification flag, from each said child record*. Tabuchi teaches a distributed system comprising a document server and a plurality of clients, which are connected to the document server via a network and a method of managing a document shared in the distributed system (Tabuchi, Col. 1, lines 5-10). Tabuchi further discloses the step of *determining whether*

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*said configuration data for which said remove notification request is for a name space, retrieving each child record of said record of said configuration data responsive to a determination said configuration data is a name space, and removing a notification flag, from each said child record* (Tabuchi, Col. 6, line 15-Col. 9, line 28). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Thomas method by including the step of removing notification flag from the child record after retrieving the child record, and by including the step of removing and retrieving, a record could be controlled and managed for modifying via access right.


**Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q PHAM whose telephone number is 703-605-4242. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner Hung Pham  
May 3, 2004

  
SHAHID ALAM  
PRIMARY EXAMINER